



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,410	02/05/2004	Kyung-yol Yon	1349.1346	3843
21171	7590	07/19/2007		
STAAS & HALSEY LLP			EXAMINER	
SUITE 700				VAJDA, PETER L
1201 NEW YORK AVENUE, N.W.			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20005			1756	
			MAIL DATE	DELIVERY MODE
			07/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/771,410	YON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Peter L. Vajda	1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 02 July 2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-11, 14, 15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) 12, 13 and 16 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-11, 14, 15 and 17 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

Art Unit: 1756

**DETAILED ACTION**

In response to the applicants' arguments filed on 07/02/2007, the examiner acknowledges the common ownership of the Moudry *et al.* (2005/0160938) reference as they are both assigned to Samsung. In view of this, the 35 U.S.C. 103(a) rejections over over Moudry *et al.* (US Patent Publication 2005/0160938) in view of Brechlin *et al.* (US Patent 4157974), Moudry *et al.* (US Patent Publication 2005/0160938) in view of Ohsawa *et al.* (US Patent 6679597), Brechlin *et al.* (US Patent 4157974) in view of Moudry *et al.* (US Patent Publication 2005/0160938), and Ohsawa *et al.* (US Patent 6679597) in view of Moudry *et al.* (US Patent Publication 2005/0160938) are withdrawn. The following rejection is hereby applied.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-11, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Morrison *et al.* (US PGP 2002/0086916).

Morrison *et al.* teach a liquid ink as well as a method of making said ink, comprising surface treated colorant pigment particles and an organosol (Abstract). The colorant pigment is taught to be surface-treated with a nitrogen-containing polymer or copolymer (p. 4 [0037]). Furthermore, the inventors teach the use of finely divided carbon as a colorant, which is well known in the art to be carbon black (p. 4 [0035]). In

Art Unit: 1756

the specification of the pending application, the applicants define carbon black as powdery carbon, which is maintained by the examiner to be the same as finely divided carbon (p. 3 [0011] of the spec.). Morrison *et al.* also teach the use of a charge control agent (p. 5 [0042]). Additionally, the inventors teach a range for the ratio of resin to colorant from 1/1 to 20/1 (p. 4 [0036]), which thereby encompasses the ratio range cited by the applicant in claims 2 and 3 of from 150/100 to 350/100 (resin to colorant, claims 2 and 3). Example 2 of Morrison discloses a coated colorant formed by adding to 20g of carbon black to 60g of a poly(vinylpyridine-co-butyl methacrylate) solution (p. 8-9 [0078]). Therefore, the coated colorant is 300 weight parts resin based on 100 weight parts of the colorant ( $60(\text{resin})/20 (\text{colorant}) = 3/1 \times 100 = 300/100$ ). Furthermore, Example 5 discloses the use of styrene and methacrylate monomers to make the thermoplastic reisn and thus anticipates claim 5 (p. 10 [0089]). Morrison *et al.* further teach that suitable examples of polymerizable organic compounds for the organosol core include N,N-dibutylaminoethyl (meth)acrylate which qualifies as a (meth)acrylate monomer having aliphatic amino radicals (p. 4 [0032]). The organosol is milled together with the colorant pigment to form a stable black ink and therefore there is either a chemical or physical binding of the organosol core to the coated colorant (p. 9 [0079-81]). The N,N-dibutylaminoethyl (meth)acrylate compound will form an amino radical due to the stabilization provided by the two butyl groups.

The method taught by Morrison entails dissolving a polymer in a solvent, dispersing colorant pigment into said polymer solution to form a colorant pigment

Art Unit: 1756

dispersion, removing the surface treated pigment particles, and dispersing the treated colorant pigment particles into an organosol (p. 2 [0016-18]).

***Conclusion***

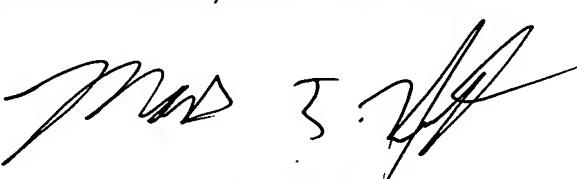
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter L. Vajda whose telephone number is 571-272-7150. The examiner can normally be reached on 7:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PLV 07/16/2007

PLV

  
MARK F. HUFF  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700